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**CLMPTO** 

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1. A television audience measurement system for identifying a viewer selected television program from among a plurality of television programs simultaneously broadcast in a broadcast channel, the television audience measurement system comprising:

a channel detector that detects the broadcast channel in which the plurality of television programs is broadcast; and,

a comparitor that sequentially compares an audio component of the plurality of television programs broadcast in the detected broadcast channel with an audio signal of the viewer selected television program so as to identify the viewer selected television program.

- 2. The television audience measurement system of claim 1 wherein the audio signal is detected by a microphone disposed adjacent a television display.
- 3. The television audience measurement system of claim I wherein the audio signal is detected by an intrusive connection into equipment related to television viewing.

- 4. The television audience measurement system of claim 1 further comprising a program identification datum detector that detects, from the viewer selected television program, a program identification datum indicative of an identity of the viewer selected television program.
- 5. The television audience measurement system of claim 4 wherein the program identification datum detector comprises a software agent resident in equipment related to television viewing.
- 6. The television audience measurement system of claim 5 wherein the software agent is arranged to search for the program identification datum.
- 7. The television audience measurement system of claim 4 wherein the audio signal is detected by a microphone disposed adjacent a television display.
- 8. The television audience measurement system of claim 4 wherein the audio signal is detected by an intrusive connection into equipment related to television viewing.

- 9. The television audience measurement system of claim 4 wherein the comparitor is arranged to sequentially compare the audio component of the plurality of television programs broadcast in the detected broadcast channel with the audio signal of the viewer selected television program so as to identify the viewer selected television program if the program identification datum detector is unable to detect a program identification datum indicative of an identity of the viewer selected television program.
- 10. The television audience measurement system of claim 1 further comprising a software agent arranged to detect, from the viewer selected television program, a data element indicative of an identity of the viewer selected television program.
- 11. The television audience measurement system of claim 10 wherein the software agent is arranged to search for a program identification datum indicative of an identity of the viewer selected television program.

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- wherein the comparitor is arranged to sequentially compare the audio component of the plurality of television programs broadcast in the detected broadcast channel with the audio signal of the viewer selected television program so as to identify the viewer selected television program if the software agent is unable to detect a data element indicative of an identity of the viewer selected television program.
- 13. A television audience measurement system for digital television equipment, wherein the digital television equipment is disposed in a statistically selected location, the television audience measurement system comprising:
- a software agent adapted to read, from a data packet contained in digital television programming, a datum identifying a television program, wherein the software agent is stored in memory associated with the digital television equipment;

an interface and communication apparatus adapted to transmit the identification datum to a remotely located central office.

14. The television audience measurement system of claim 13 wherein the digital television equipment comprises a receiver having a tuner, a microprocessor, memory, an operating system, and a video display unit.

- 15. The television audience measurement system of claim 13 wherein the digital television equipment is a set top box providing an analog television signal to an analog receiver.
- 16. The television audience measurement system of claim 13 wherein the digital television equipment comprises a set top box providing a digital television signal to a digital receiver.
- 17. The television audience measurement system of claim 13 wherein the digital television equipment comprises a set top box and a monitor.
- 18. The television audience measurement system of claim 13 wherein the digital television equipment comprises a personal computer provided with a television receiver.
- 19. The television audience measurement system of claim 13 wherein the digital television equipment includes a VCR.
- 20. The television audience measurement system of claim 13 wherein the digital television equipment includes a digital versatile disk player.
- 21. The television audience measurement system of claim 13 further comprising a person identification apparatus.

- 22. The television audience measurement system of claim 13 wherein the identification datum is a program identification code of a television program.
- 23. The television audience measurement system of claim 13 wherein the identification datum comprises a program name.
- 24. The television audience measurement system of claim 13 wherein the identification datum comprises an address of an Internet page.
- 25. The television audience measurement system of claim 13 wherein the identification datum comprises an identification code of an Internet page.
- 26. The television audience measurement system of claim 13 wherein the identification datum comprises a banner of material viewed by an audience.
- 27. The television audience measurement system of claim 13 wherein the identification datum comprises a signature extracted from a television program viewed on the digital television equipment.
- 28. The television audience measurement system of claim 13 wherein the software agent is arranged to detect window activities conducted by an audience.

- 29. The television audience measurement system of claim 13 wherein the interface and communication apparatus includes a serial port.
- 30. The television audience measurement system of claim 13 wherein the interface and communication apparatus includes a parallel port.
- 31. The television audience measurement system of claim 13 wherein the interface and communication apparatus includes a universal serial bus.
- 32. The television audience measurement system of claim 13 wherein the interface and communication apparatus includes a firewire.
- 33. The television audience measurement system of claim 13 wherein the interface and communication apparatus is arranged to send the identification datum to an Internet service provider via the Internet.
- 34. The television audience measurement system of claim 13 wherein the interface and communication apparatus includes an intermediate data collector.
- 35. The television audience measurement system of claim 34 wherein the intermediate data collector includes a

store and forward device, and wherein the store and forward device is arranged to send the identification datum to the central office via a telephone line.

- 36. The television audience measurement system of claim 34 wherein the intermediate data collector is an Internet service provider.
- 37. The television audience measurement system of claim 34 wherein the intermediate data collector is a data collection facility located in the central office.
- 38. The television audience measurement system of claim 13 wherein the software agent is a software agent downloaded to the memory associated with the digital television equipment.
- 39. The television audience measurement system of claim 13 wherein the software agent is a plug in software agent of the digital television equipment.
- 40. The television audience measurement system of claim 13 wherein the software agent is a floppy disk software agent of the digital television equipment.

41. A television audience measurement system for identifying a viewer selected television program from among a plurality of television programs broadcast as a time division multiplexed sequence of data packets in a broadcast channel, the viewer selected television program being displayed on a television display in a statistically selected location, the television audience measurement system comprising:

receiving means for receiving the time division multiplexed sequence of data packets in the broadcast channel;

acquiring means for acquiring an audio portion of the viewer selected television program;

recovering means for recovering audio components respectively corresponding to the television programs contained in the sequence of data packets; and,

comparing means for comparing the audio components to the audio portion in order to determine the viewer selected television program.

42. The television audience measurement system of claim 41 wherein the acquiring means comprises a sensor arranged to acquire a representation of a speaker signal from a speaker associated with the television display.

- 43. The television audience measurement system of claim 41 wherein the acquiring means comprises a connection to audio processing circuitry associated with the television display.
- 42. The television audience measurement system of claim 41 wherein the acquiring means comprises a sensor arranged to acquire a representation of a speaker signal from a speaker associated with the television display.
- 45. The television audience measurement system of claim 41 wherein the receiving means comprises:
- a local oscillator frequency probe arranged to pick up a local oscillator frequency signal from the television display;

means for identifying the broadcast channel from the local oscillator signal;

wherein the recovering means recovers the audio components from television programs contained in the identified broadcast channel; and,

wherein the comparing means compares the audio components to the representation of the speaker signal in order to determine the viewer selected television program.

- 46. The television audience measurement system of claim 41 wherein the receiving means comprises a scanning receiver arranged to scan each of a plurality of broadcast channels and to receive a corresponding plurality of time division multiplexed television programs from each of the plurality of broadcast channels.
- 47. The television audience measurement system of claim 41 further comprising identifying means for identifying persons in an audience of the viewer selected television program.
- 48. A television audience measurement system for measuring viewing of a television program viewed on digital television located in a statistically selected site comprising:

detecting means for detecting an audio code embedded in the television program in order to identify the television program;

extracting means for extracting an audio signature from the television program in order to identify the television program;

a software agent arranged to identify the television program; and,

selecting means for selecting at least one of the detecting means, the extracting means, and the software agent in order to identify the television program.

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49. The television audience measurement system of claim 48 further comprising retrieving means for retrieving an audience measurement data packet from a television set in order to identify the television program, wherein the selecting means selects at least one of the retrieving means, the detecting means, the extracting means, and the software agent in order to identify the television program.

- 50. A method of identifying a television program selected by a viewer from a set of television programs broadcast as multiplexed data packets in a viewer selected broadcast channel, the viewer selected television program being displayed on a display portion of an apparatus tuned to the viewer selected broadcast channel, the method comprising the steps of:
- a) determining the viewer selected broadcast channel;
- b) acquiring an audio portion of the viewer selected television program;
- c) selecting an audio component associated with one of the set of television programs broadcast in the viewer selected broadcast channel;
- d) comparing the audio portion with the audio component in order to determine whether the audio portion and the audio component match;

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e) if the audio portion and the audio component match, storing a tuning record from at least one of the audio portion and the audio component; and,

- f) if the audio portion and the audio component do not match, repeating steps (c) through (f) until either a match is found or the set of television programs is exhausted.
- 51. The method of claim 50 wherein step a) comprises the step of determining the viewer selected broadcast channel by use of a channel detector associated with the apparatus.
- 52. The method of claim 51 wherein step b) comprises the step of acquiring the audio portion of the viewer selected television program by use of an audio probe adjacent the apparatus.
- 53. The method of claim 52 wherein step c) comprises the step of selecting the audio component by use of a digital tuner that is not a portion of the apparatus.
- 54. The method of claim 50 wherein step b) comprises the step of acquiring the audio portion of the viewer selected television program by use of an audio probe adjacent the apparatus.

- 55. The method of claim 54 wherein step c) comprises the step of selecting the audio component by use of a digital tuner that is not a portion of the apparatus.
- 56. The method of claim 50 wherein step c) comprises the step of selecting the audio component by use of a digital tuner that is not a portion of the apparatus.

## 57-60 (canceled)

61. A software agent stored in memory associated with digital television equipment, wherein the software agent is arranged to acquire television audience measurement data relative to the digital television equipment, the software agent comprising:

first logging means for logging a television program identification datum identifying a television program selected for viewing on the digital television equipment:

second logging means for logging an identification datum associated with data corresponding to the television program selected for viewing on the digital television equipment; and,

third logging means for logging an Internet identification datum associated with an Internet task of the digital television equipment.

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62. An apparatus for identifying a viewer selected television program from among a plurality of time overlapped television programs broadcast in a viewer selected broadcast channel and received by digital television program reception equipment, wherein the digital television program reception equipment has a data port, the apparatus comprising:

reading means connected to the data port for reading program identifying data from among data provided on the data port; and,

storing means for storing the program identifying data.

- 63. The apparatus of claim 62 wherein the digital television program reception equipment is a digital converter.
- 64. The apparatus of claim 62 wherein the digital television program reception equipment is a personal computer.
- 65. The apparatus of claim 62 wherein the digital television program reception equipment is a digital television set.

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66. An apparatus for identifying a viewer selected television program from among a plurality of time overlapped television programs broadcast in a viewer selected broadcast channel and received by digital television program reception equipment, wherein the digital television program reception equipment has a data port, the apparatus comprising:

reading means connected to the data port for reading program identifying data from among data provided on the data port; and,

communicating means for communicating the program identifying data to a remote point.

- 67. The apparatus of claim 66 wherein the digital television program reception equipment is a digital converter.
- 68. The apparatus of claim 66 wherein the digital television program reception equipment is a personal computer.
- 69. The apparatus of claim 66 wherein the digital television program reception equipment is a digital television set.

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70. A television audience measurement method for identifying a viewer selected television program from among a plurality of television programs broadcast as a time division multiplexed sequence of packets in a broadcast channel, the viewer selected television program being displayed on a television display in a statistically selected location, the television audience measurement method comprising:

receiving the time division multiplexed sequence of packets in the broadcast channel;

acquiring an audio portion of the viewer selected television program;

recovering audio components respectively corresponding to the television programs contained in the sequence of packets; and,

comparing the audio components to the audio portion in order to determine the viewer selected television program.

- 71. The television audience measurement method of claim 70 wherein the acquiring of an audio portion comprises non-intrusively acquiring a representation of a speaker signal from a speaker associated with the television display.
- 72. The television audience measurement method of claim 70 wherein the acquiring of an audio portion comprises acquiring the audio portion from an output jack associated with the television display.

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73. The television audience measurement method of claim 70 wherein the receiving of the time division multiplexed sequence of packets comprises:

acquiring an intermediate frequency signal from a viewer controlled tuner associated with the television display; and,

demodulating the intermediate frequency signal in order to receive the packets.

74. The television audience measurement method of claim 70 wherein the receiving of the time division multiplexed sequence of packets comprises:

picking up a local oscillator frequency signal from the television display;

identifying the broadcast channel from the local oscillator signal;

recovering the audio components from television programs contained in the identified broadcast channel; and,

comparing the audio components to the audio portion in order to determine the viewer selected television program.

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75. The television audience measurement method of claim 70 wherein the receiving of the time division multiplexed sequence of packets comprises:

scanning each of a plurality of broadcast channels; and,
receiving a corresponding plurality of time division multiplexed
television programs from each of the plurality of broadcast channels.

- 76. The television audience measurement method of claim 70 further comprising identifying persons in an audience of the viewer selected television program.
- 77. A television audience measurement method for measuring viewing of a television program viewed on digital television located in a statistically selected site comprising:

detecting an audio code embedded in the television program in order to identify the television program;

extracting an audio signature from the television program in order to identify the television program;

acquiring a program identification by use of a software agent to identify the television program; and,

selecting at least one of the detecting of the audio code, the extracting of the audio signature, and the acquiring of the program identification for identifying the television program.

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- further comprising retrieving an audience measurement packet from a television set in order to identify the television program, wherein the selecting of the at least one of the detecting of the audio code, the extracting of the audio signature, and the acquiring of the program identification comprises selecting at least one of the retrieving of the audience measurement data packet, the detecting of the audio code, the extracting of the audio signature, and the acquiring of the program identification for identifying the television program.
- 79. A method implemented by a software agent stored in memory associated with digital television equipment, wherein the software agent is arranged to acquire television audience measurement data relative to the digital television equipment, the method comprising:

logging a television program identification datum identifying a television program selected for viewing on the digital television equipment;

logging an identification datum associated with data corresponding to the television program selected for viewing on the digital television equipment; and,

logging an Internet identification datum associated with an Internet task of the digital television equipment. Application/Control Number: 09/909,224 Page 22

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80. A method for identifying a viewer selected television program from among a plurality of time overlapped television programs broadcast in a viewer selected broadcast channel and received by digital television program reception equipment, wherein the digital television program reception equipment has a data port, the method comprising:

reading program identifying data from among data provided on the data port; and,

storing the program identifying data.

- 81. The method of claim 80 wherein the digital television program reception equipment is a digital converter.
- 82. The method of claim 80 wherein the digital television program reception equipment is a personal computer.
- 83. The method of claim 80 wherein the digital television program reception equipment is a digital television set.

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84. A method for identifying a viewer selected television program from among a plurality of time overlapped television programs broadcast in a viewer selected broadcast channel and received by digital television program reception equipment, wherein the digital television program reception equipment has a data port, the apparatus comprising:

reading program identifying data from among data provided on the data port; and,

communicating the program identifying data to a remote point.

- 85. The method of claim 84 wherein the digital television program reception equipment is a digital converter.
- 86. The method of claim 84 wherein the digital television program reception equipment is a personal computer.
- 87. The method of claim 84 wherein the digital television program reception equipment is a digital television set.

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